IN THE CLAIMS:

Please add new Claims 13-22, as follows.

1. (Original) An optical signal receiver comprising:

an opto-electric converter for converting an optical signal transmitted from a remotely opposed transmitter into an electric signal;

a reproduction circuit for reproducing a data signal from an output of said opto-electric converter;

a fixed signal generation circuit for generating a fixed signal having a logic level fixed to 0 or 1;

a switch for selectively outputting either the data signal reproduced by said reproduction circuit or the fixed signal generated by said fixed signal generation circuit; and

a control circuit for detecting an abnormal state of optical signal transmission and controlling said switch,

said control circuit being adapted to output the fixed signal from said switch, when it detects the abnormal state while outputting the data signal from said switch.

2. (Original) An optical signal receiver according to claim 1, wherein the optical signal includes a main signal and an auxiliary signal giving a DC component level and said control circuit comprises means for detecting an AC component level of the optical signal, means for detecting the DC component level of the optical signal, means for

comparing the detected AC component level and the detected DC component level with respective predetermined threshold values, and a clock extraction circuit for extracting a clock component from the electric signal and detecting a synchronized or unsynchronized state, said control circuit being adapted to determine that an abnormal communication state has occurred when it detects at least a state of the AC component level falling under the threshold level, a state of the DC component level falling under the threshold level and/or an unsynchronized state.

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3. (Original) An optical signal receiver according to claim 2, wherein said means for detecting the AC component level of the optical signal comprises a first filter for extracting the main signal from the electric signal and a main signal detection circuit for transforming an amplitude level of the main signal extracted by the first filter into a voltage and said means for detecting the DC component level of the optical signal comprises a second filter for extracting the auxiliary signal from the electric signal and an auxiliary signal detection circuit for transforming an amplitude level of the auxiliary signal extracted by the second filter into a voltage.

4. (Original) An optical signal receiver according to claim 2, wherein said reproduction circuit comprises a wave shaping circuit for reproducing the data signal on the basis of the clock component extracted by said clock extraction circuit and the electric signal outputted from said opto-electric converter.

5. (Original) An optical signal receiver according to claim 2, wherein said clock extraction circuit comprises a phase comparator, a voltage control oscillator adapted to receive an output of the phase comparator and a feedback loop for feeding back an output of the voltage control oscillator to the phase comparator by way of a loop filter.

6. (Original) An optical signal receiver according to claim 2, wherein said control circuit causes said switch to be switched to output the data signal when the AC component level and the DC component level exceed the respective predetermined threshold values and said clock extraction circuit detects the synchronized state while said switch is outputting the fixed signal.

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7. (Original) An optical signal receiver according to claim 2, wherein said control circuit causes said switch to be switched to output the data signal when the AC component level and the DC component level exceed the respective predetermined threshold values and said clock extraction circuit detects the synchronized state at the end of a predetermined period of time during which said switch keeps on outputting the fixed signal.

8. (Original) An optical signal receiver according to claim 1, further comprising:

lenses for converging the optical signal to said opto-electric converter.

9. (Original) An optical space transmission system comprising:

a transmitter for transmitting an optical signal; and

an optical signal receiver according to any of claims 1 through 8, said optical signal receiver being remotely opposed to said transmitter and adapted to receive the optical signal transmitted from said transmitter.

10. (Original) An optical space transmission system according to claim 9, wherein

said transmitter comprises a main signal input section, an auxiliary signal generation circuit for generating an auxiliary signal to be used for detecting a DC component level of the optical signal, a multiplexer for multiplexing the main signal and the auxiliary signal and an electro-optic converter for converting an output of the multiplexer into an optical signal.

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11. (Original) An optical space transmission system according to claim 10, wherein

said transmitter further comprises lenses for sending out the optical signal transmitted from the electro-optic converter toward the optical signal receiver.

12. (Original) An optical space transmission system according to claim 10, wherein

said electro-optic converter comprises a laser diode and a laser drive circuit for driving said laser diode.

13. (New) An optical signal receiver comprising:

an opto-electric converter for converting an optical signal transmitted from a remotely opposed transmitter into an electric signal;

a reproduction circuit for reproducing a data signal from an output of said opto-electric converter; and

a control circuit for detecting an abnormal state of optical signal transmission,

said control circuit being adapted for suspending the data signal to be outputted from said reproduction circuit, when it detects the abnormal state while the data signal is outputted from said reproduction circuit.

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14. (New) An optical signal receiver according to claim 13, wherein the optical signal includes a main signal and an auxiliary signal giving a DC component level and said control circuit comprises means for detecting an AC component level of the optical signal, means for detecting the DC component level of the optical signal, means for comparing the detected AC component level and the detected DC component level with respective predetermined threshold values, and a clock extraction circuit for extracting a clock component from the electric signal and detecting a synchronized or unsynchronized state, said control circuit being adapted to determine that an abnormal communication state has occurred when it detects at least a state of the AC component level falling under the

threshold level, a state of the DC component level falling under the threshold level and/or an unsynchronized state.

15. (New) An optical signal receiver according to claim 14, wherein said means for detecting the AC component level of the optical signal comprises a first filter for extracting the main signal from the electric signal and a main signal detection circuit for transforming an amplitude level of the main signal extracted by the first filter into a voltage and said means for detecting the DC component level of the optical signal comprises a second filter for extracting the auxiliary signal from the electric signal and an auxiliary signal detection circuit for transforming an amplitude level of the auxiliary signal extracted by the second filter into a voltage.

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16. (New) An optical signal receiver according to claim 14, wherein said reproduction circuit comprises a wave shaping circuit for reproducing the data signal on the basis of the clock component extracted by said clock extraction circuit and the electric signal outputted from said opto-electric converter.

17. (New) An optical signal receiver according to claim 14, wherein said clock extraction circuit comprises a phase comparator, a voltage control oscillator adapted to receive an output of the phase comparator and a feedback loop for feeding back an output of the voltage control oscillator to the phase comparator by way of a loop filter.

18. (New) An optical signal receiver according to Claim 13, further comprising a fixed signal generation circuit for generating a fixed signal,

wherein said control circuit causes said fixed signal generation circuit to output the fixed signal, when it detects the abnormal state while the data signal is outputted from said reproduction circuit.

19. (New) An optical signal receiver according to Claim 14, further comprising a fixed signal generation circuit for generating a fixed signal,

wherein said control circuit causes said fixed signal generation circuit to output the fixed signal, when it detects the abnormal state while the data signal is outputted from said reproduction circuit.

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20. (New) An optical signal receiver according to Claim 19, wherein

said control circuit causes said reproduction circuit to output the data signal when the AC component level and the DC component level exceed the respective predetermined threshold values and said clock extraction circuit detects the synchronized state while said fixed signal generating circuit is outputting the fixed signal.

21. (New) An optical signal receiver according to Claim 19, wherein

said control circuit causes said reproduction circuit to output the data signal when the AC component level and the DC component level exceed the respective predetermined threshold values and said clock extraction circuit detects the synchronized

state at the end of a predetermined period of time during which said fixed signal generating circuit keeps on outputting the fixed signal.

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22. (New) An optical space transmission system comprising:

a transmitter for transmitting an optical signal; and

an optical signal receiver according to any of claims 13 through 21, said optical signal receiver being remotely opposed to said transmitter and adapted to receive the optical signal transmitted from said transmitter.